

WHAT IS CLAIMED IS:

1. An image processing terminal apparatus, comprising:
an image capture device configured to optically scan an intended area on a document by moving the terminal apparatus over the document and to capture image data of each of serial static images of the intended area for position calculation and image data of each of serial static images of the intended area for character recognition, alternately; and

an image process device configured to calculate position information of the each of serial static images of the intended area for character recognition based on image data of predetermined areas in the each of serial static images of the intended area for position calculation.

2. The image processing terminal apparatus according to claim 1, wherein the image process device is configured to calculate the position information of the each of serial static images of the intended area for character recognition based on image data of at least two predetermined areas in the each of serial static images of the intended area for position calculation.

3. The image processing terminal apparatus according to claim 1, wherein the image data of the each of serial static images of the intended area for position calculation and the image data of the each of serial static images of the intended area for character recognition are captured at different resolutions.

4. The image processing terminal apparatus according to claim 1, wherein the image capture device is configured to emit light in a direction substantially parallel to a surface of the

document when capturing the image data of the each of serial static images of the intended area for position calculation and to emit light in a direction substantially perpendicular to the surface of the document when capturing the image data of each of serial static images of the intended area for character recognition.

5. The image processing terminal apparatus according to claim 1, further comprising:

an output device configured to output the image data of the each of serial static images of the intended area for character recognition together with the position information of the each of serial static images of the intended area for character recognition to outside.

6. The image processing terminal apparatus according to claim 5, further comprising:

a display device; and

an input device configured to input data from an external computer,

wherein the image data of the each of serial static images of the intended area for character recognition is outputted to the external computer together with the position information of the each of serial static images of the intended area for character recognition with the output device, and a result of character recognition performed at the external computer to image data of the intended area obtained by serially joining the image data of the each of serial static images of the intended area for character recognition with each other based on the position information of the each of serial static images on the intended area for character recognition is inputted to the input device and is displayed on the display device.

7. The image processing terminal apparatus according to claim 6,

wherein the image data of the each of serial static images of the intended area for character recognition being captured with the image capture device is displayed on the display device.

8. The image processing terminal apparatus according to claim 1 wherein the apparatus is connected with an external computer and is configured to perform a pointing function to the external computer.

9. The image processing terminal apparatus according to claim 1, wherein the apparatus is configured to function as a mobile phone and is connected with a server via a wireless public switched network.

10. The image processing terminal apparatus according to claim 1, further comprising:

an image synthesis device configured to serially join the image data of the each of serial static images of the intended area for character recognition with each other based upon the position information of the each of serial static images of the intended area for character recognition to generate image data of the intended area.

11. The image processing terminal apparatus according to claim 10, further comprising:

a character recognition device configured to perform character recognition to the image data of the intended area.

12. The image processing terminal apparatus according to claim 11, further comprising:

a display device; and

wherein a result of character recognition to the image data of the intended area is displayed on the display device.

13. The image processing terminal apparatus according to claim 10, further comprising:

a display device; and

wherein the image data of each of serial static images of the intended area for character recognition being captured with the image capture device is displayed on the display device.

14. The image processing terminal apparatus according to claim 10, wherein the apparatus is connected with an external computer and is configured to perform a pointing function to the external computer.

15. The image processing terminal apparatus according to claim 10, wherein the apparatus is configured to function as a mobile phone and is connected with a server via a wireless public switched network.

16. An image processing system, comprising:

a terminal apparatus including,

an image capture device configured to optically scan an intended area on a document by moving the terminal apparatus over the document and to capture image data of each of serial static images of the intended area for position calculation and image data of each of serial static images of the intended area for character recognition, alternately; and

an image process device configured to calculate position information of the each of serial static images of the intended area for character recognition based on image data of predetermined areas in the each of serial static images of the intended area for position calculation; and

a computer connected with the terminal apparatus,

wherein the computer serially joins the image data of the each of serial static images of the intended area for character recognition with each other based upon the position information of the each of serial static images of the intended area for character recognition to generate image data of the intended area.

17. The system according to claim 16, wherein the computer performs character recognition to the image data of the intended area.

18. The system according to claim 16, wherein the terminal apparatus is configured to function as a pointing device to the computer.

19. An image processing system, comprising:

a terminal apparatus including,

an image capture device configured to optically scan an intended area on a document by moving the terminal apparatus over the document and to capture image data of each of serial static images of the intended area for position calculation and image data of each of serial static images of the intended area for character recognition, alternately,

an image process device configured to calculate position information of the each of serial static images of the intended area for character recognition based on image data of

predetermined areas in the each of serial static images of the intended area for position calculation, and

an image synthesis device configured to serially join the image data of the each of serial static images of the intended area for character recognition with each other based upon the position information of the each of serial static images of the intended area for character recognition to generate image data of the intended area; and

a computer connected with the terminal apparatus, wherein the computer performs character recognition to the image data of the intended area.

20. The system according to claim 19, wherein the terminal apparatus is configured to function as a pointing to device to the computer.

21. An image processing network system, comprising:
the Internet;

an image processing terminal apparatus connected with the Internet, the image processing terminal apparatus including,
an image capture device configured to optically scan an intended area on a document by moving the apparatus over the document and to capture image data of each of serial static images of the intended area for position calculation and image data of each of serial static images of the intended area for character recognition alternately, and

an image process device configured to calculate position information of the each of serial static images of the intended area for character recognition based on image data of predetermined areas in the each of serial static images of the intended area for position calculation; and

a server connected with the Internet,

wherein the image processing terminal apparatus transmits the image data of the each of serial static images of the intended area for character recognition together with the position information of the each of serial static images of the intended area for character recognition to the server via the Internet, and the server serially joins the image data of the each of serial static images of the intended area for character recognition with each other based on the image data of the each of serial static images of the intended area for character recognition to generate image data of the intended area, performs character recognition to the image data of the intended area, and transmits a result of the character recognition to the image processing terminal apparatus.

22. The image processing network system according to Claim 21, wherein the image processing terminal apparatus is a mobile phone connected with the Internet via a wireless public switched circuit.

23. An image processing network system, comprising:
the Internet;

an image processing terminal apparatus connected with the Internet, the image processing terminal apparatus including,
an image capture device configured to optically scan an intended area on a document by moving the terminal apparatus over the document and to capture image data of each of serial static images of the intended area for position calculation and image data of each of serial static images of the intended area for character recognition, alternately,

an image process device configured to calculate position information of the each of serial static images of the intended area for character recognition based on image data of

predetermined areas in the each of serial static images of the intended area for position calculation, and

an image synthesis device configured to serially join the image data of the each of serial static images of the intended area for character recognition with each other based upon the position information of the each of serial static images of the intended area for character recognition to generate image data of the intended area; and

a server connected with the Internet,

wherein the image processing terminal apparatus transmits the image data of the intended area, and the server performs character recognition to the image data of the intended area, and transmits a result of the character recognition to the image processing terminal apparatus.

24. The image processing network system according to Claim 23, wherein the image processing terminal apparatus is a mobile phone connected with the Internet via a wireless public switched circuit.

25. A method of image processing in an image processing system, comprising:

scanning an intended area on a document and capturing image data of each of serial static images of the intended area for position calculation and image data of each of serial static images of the intended area for character recognition, alternately, with an image capture device of a terminal apparatus of the system by moving the terminal apparatus over the document; and

calculating position information of the each of serial static images of the intended area for character recognition based on image data of at least two predetermined areas in the

each of the serial static images of the intended area for position calculation with an image process device of the terminal apparatus.

26. The method according to claim 25, wherein in the scanning and capturing, the image data of the each of serial static images of the intended area for position calculation and the image data of the each of serial static images of the intended area for character recognition are captured at different resolutions.

27. The method according to claim 25, wherein in the scanning and capturing, the image capture device of the terminal apparatus emits light in a direction substantially parallel to a surface of the document when capturing the image data of the each of serial static images of the intended area for position calculation and light in a direction substantially perpendicular to the surface of the document when capturing the image data of each of serial static images of the intended area for character recognition.

28. The method according to claim 25, further comprising:
serially joining the image data of the each of serial static images of the intended area for character recognition with each other with an image synthesis device of the terminal apparatus based on the position information of the each of serial static images of the intended area for character recognition to generate image data of the intended area.

29. The method according to claim 28, further comprising:
displaying the image data of the intended area on a display device of the terminal apparatus.

30. The method according to claim 28, further comprising:
performing character recognition to the image data of the
intended area with a character recognition device of the
terminal apparatus.

31. The method according to claim 30, further comprising:
inputting a result of the character recognition to a cursor
location of application software being operated on a computer
connected with the terminal apparatus.

32. The method according to claim 30, further comprising:
displaying a result of the character recognition on a
display device of the terminal apparatus.

33. The method according to claim 32, further comprising:
inputting confirmation of the result of the character
recognition being displayed on the display device of the
terminal apparatus.

34. The method according to claim 33, further comprising:
inputting the result of the character recognition to a
cursor location of application software being operated on a
computer connected with the terminal apparatus.

35. The method according to claim 25, further comprising:
inputting the image data of the each of serial static
images of the intended area for character recognition together
with the position information of the each of serial static
images of the intended area for character recognition to a
computer.

36. The method according to claim 35, further comprising:
serially joining the image data of the each of serial
static images of the intended area for character recognition
with each other based on the position information of the each
of serial static images of the intended area for character
recognition to generate image data of the intended area and
performing character recognition to the image data of the
intended area with the computer.

37. The method according to claim 36, further comprising:
displaying a result of the character recognition on a
display device of the terminal apparatus.

38. The method according to claim 37, further comprising:
inputting confirmation of the result of the character
recognition being displayed on the display device of the
terminal apparatus with the terminal apparatus.

39. The method according to claim 38, further comprising:
inputting the result of the character recognition to a
cursor location of application software being operated on the
computer.

40. The method according to claim 28, further comprising:
transmitting the image data of the intended area to a
remote computer via a public switched network.

41. The method according to claim 40, further comprising:
processing the image data with the remote computer and
transmitting a result of the processing to the terminal
apparatus.

42. The method according to claim 41, further comprising:
displaying the result of the processing on a display device
of the terminal apparatus